ABSTRACT OF THE DISCLOSURE

In a method of optimizing a shape of an aperture, an effective light source is divided into a plurality of minute areas having same shape and size. One point light source is provided at a center of each of the divided minute areas. A normalized image light intensity slope on a wafer is obtained in consideration of a focus variation of a projection aligner for a plurality of patterns at each of the point light sources. The normalized image light intensity slope of a light intensity is used as an index. The image light intensity slope is related to an exposure amount variation of the projection aligner by one dimensional function. A common opening is selected for the shape of the aperture that is optimized for each of the patterns. The common opening is made into an optimum shape of the aperture for the patterns.